Docket: 09780001aa

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Listing of the Claims:

The following is a complete listing of all the claims in the application, with an indication of the status of each:

1. (Canceled)

2. (Currently amended) A method of producing a carbon nanotube, comprising: preparing a one dimensional carbon structure;

introducing a catalyst substance into said one dimensional carbon structure;

making said catalyst substance move in said one dimensional carbon structure; and

crystallizing a trail region of movement of said catalyst in said one dimensional carbon structure, wherein said step of crystallizing converts said trail region to a carbon nanotube The method of producing a carbon nanotube according to claim 1, wherein said crystallizing said trail region is performed after said one dimensional carbon structure is fixed on a predetermined position of a substrate.

3-4. (Canceled)

5. (Currently amended) A method of producing a carbon nanotube, comprising:

preparing a one dimensional carbon structure The method of producing a carbon nanotube according to claim 1, wherein said one dimensional carbon structure is formed by a vapor-phase deposition method of using a charged particle beam as an excitation source;

introducing a catalyst substance into said one dimensional carbon structure;

making said catalyst substance move in said one dimensional carbon structure; and

crystallizing a trail region of movement of said catalyst in said one dimensional carbon structure, wherein said step of crystallizing converts said trail region to a carbon nanotube.

6. (Currently amended) A method of <u>producing a carbon nanotube, comprising:</u>

<u>preparing a one dimensional carbon structure</u> ~~The method of producing a carbon nanotube according to claim 1~~, wherein said one dimensional carbon structure is prepared by a vapor-phase deposition method of using an aromatic hydrocarbon compound as a precursor material<u>;</u>

<u>introducing a catalyst substance into said one dimensional carbon structure;</u>

<u>making said catalyst substance move in said one dimensional carbon structure; and</u>

<u>crystallizing a trail region of movement of said catalyst in said one dimensional carbon structure, wherein said step of crystallizing converts said trail region to a carbon nanotube.</u>

7. Currently amended) A method of <u>producing a carbon nanotube, comprising:</u>

<u>preparing a one dimensional carbon structure</u> ~~The method of producing a carbon nanotube according to claim 1~~, wherein said one dimensional carbon structure is a resist pattern<u>;</u>

<u>introducing a catalyst substance into said one dimensional carbon structure;</u>

<u>making said catalyst substance move in said one dimensional carbon structure; and</u>

<u>crystallizing a trail region of movement of said catalyst in said one dimensional carbon structure, wherein said step of crystallizing converts said trail region to a carbon nanotube.</u>

8-9. (Canceled)

10. (Previously presented) A method of producing a carbon nanotube, comprising:

preparing a substrate;

forming a one dimensional carbon structure at a position separated from a surface of the substrate;

preparing a carbon nanotube by making a catalyst substance move in the one dimensional carbon structure; and

crystallizing a trail region of movement of said catalyst in said one dimensional carbon structure, wherein said step of crystallizing converts said trail region to said carbon nanotube.

11. (Previously presented) The method of producing a carbon nanotube according to claim 10, wherein said one dimensional carbon structure is heated when said catalyst substance is moved in the carbon structure.

12. (Previously presented) The method of producing a carbon nanotube according to claim 11, wherein at least part of said catalyst substance is liquefied by heating said one dimensional carbon structure.

13. (Previously presented) The method of producing a carbon nanotube according to claim 10, wherein said one dimensional carbon structure is formed by a vapor-phase deposition method of using a charged particle beam as an excitation source.

14. (Previously presented) The method of producing a carbon nanotube according to claim 10, wherein said one dimensional carbon structure is prepared by a vapor-phase deposition method of using an aromatic hydrocarbon compound as a precursor material.

15. (Previously presented) The method of producing a carbon nanotube according to claim 10, wherein said one dimensional carbon structure is a resist pattern.

16- 23 (Canceled)

24. (Previously submitted) A method of producing a transistor, comprising
    forming a carbon nanotube structure by
        preparing a substrate;
        forming a one dimensional carbon structure at a position separated
        from a surface of said substrate;
        preparing a carbon nanotube by making a catalyst substance move

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in said one dimensional carbon structure; and

crystallizing a trail region of movement of said catalyst in said one

dimensional carbon structure, wherein said step of crystallizing

converts said trail region to said carbon nanotube structure;

forming a source electrode and a drain electrode on both ends of said

carbon nanotube structure, respectively; and

forming a gate electrode on said carbon nanotube structure.

25. (Previously submitted) A method of producing a wiring structure of carbon

nanotube, comprising

forming a carbon nanotube by

preparing a substrate;

forming a one dimensional carbon structure at a position separated

from a surface of said substrate;

preparing a carbon nanotube by making a catalyst substance move

in said one dimensional carbon structure; and

crystallizing a trail region of movement of said catalyst in said

carbon structure, wherein said step of crystallizing converts said

trail region to said carbon nanotube.